

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the applications:

**Listing of Claims:**

1. (Cancelled)
2. (Previously presented) An electromagnetic radiation absorber for absorbing electromagnetic radiation in the wavelength range  $\lambda_{\min}$  to  $\lambda_{\max}$  within the electromagnetic wavelength range comprising a conductor layer in contact with a dielectric layer wherein the conductor layer includes a plurality of slits in a grating arrangement each slit having at least one dimension that is less than  $\lambda_{\min}$ , wherein the thickness of the absorber is less than  $\lambda_{\min}/4n$ , where n is the refractive index of the dielectric.
3. (Currently amended) An ~~e/m~~ electromagnetic radiation absorber as claimed in claim 2 wherein the thickness of the absorber is less than  $\lambda_{\min}/10$ .
4. (Cancelled).
5. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the slit structures are periodic in nature.
6. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the slit structures are curved.
7. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the slit structures comprise a series of non-parallel slits.
8. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the slit structures comprise a parallel slit arrangement.
9. (Previously presented) An electromagnetic radiation absorber as claimed in claim 8 wherein the wavelength  $\lambda$  of radiation absorbed is determined by

$$\lambda \approx 2nG/N$$

where  $\lambda$  is the wavelength in the range  $\lambda_{\min}$  to  $\lambda_{\max}$  where maximum absorption occurs, n is the refractive index of the dielectric, G is the spacing of the slits and N is an integer greater than or equal to 1.

10. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the slit structure comprises two orthogonal sets of parallel slits.

11. (Previously presented) An electromagnetic radiation absorber as claimed in any of claim 2 wherein the slit structures comprise three sets of parallel slits at 60 degree azimuthal separation.

12. (Currently amended) An electromagnetic radiation absorber as claimed in ~~any of~~ claim 2 wherein the slit width is less than 400 microns.

13. (Previously presented) An electromagnetic radiation absorber as claimed in claim 12 wherein the slit width is less than 50 microns.

14. (Previously presented) An electromagnetic radiation absorber as claimed claim 2 wherein the dielectric comprises a material having an actively variable refractive index.

15. (Previously presented) An adhesive tape comprising an electromagnetic radiation absorber according to claim 2.

16-17 (Cancelled)

18. (Previously presented) A heating element for use in a microwave oven comprising an electromagnetic absorber as claimed in claim 2.

19. (Cancelled)

20. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the thickness of the absorber is less than  $\lambda_{\min}/100$ .

21. (Cancelled)

22. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the absorber is backed with an adhesive material.

23. (Previously presented) An electromagnetic radiation absorber as claimed in claim 2 wherein the dielectric layer is sandwiched between the conductor layer and a second conductor layer.

24-25 (Cancelled)

26. (Previously presented) An electromagnetic radiation absorber for absorbing radiation in the wavelength range  $\lambda_{\min}$  to  $\lambda_{\max}$  comprising a conductor layer in contact with a dielectric layer wherein the conductor layer includes a plurality of slits in a grating arrangement each slit having at least one dimension that is less than  $\lambda_{\min}$ , wherein the thickness of the absorber is less than  $\lambda_{\min}/100$ .

27. (Previously presented) An electromagnetic radiation absorber according to Claim 26, wherein the absorber is flexible.

28. (Previously presented) An electromagnetic radiation absorber according to Claim 26, wherein the plurality of slits are arranged in a bigrating.

29. (Previously presented) An electromagnetic radiation absorber according to Claim 26, wherein the dielectric comprises a material having an actively variable refractive index.

30. (Previously presented) An electromagnetic radiation absorber according to Claim 26, comprising a further conductor layer arranged such that the dielectric layer is sandwiched between the conductor layer and the further conductor layer.